

**UNIT 560**

**ANTELOPE VALLEY CALIFORNIA POPPY PRESERVE (STATE RESERVE)**

**GENERAL DEVELOPMENT PLAN**

**October 1978**

# ANTELOPE VALLEY CALIFORNIA POPPY RESERVE

## RESOURCE MANAGEMENT PLAN, GENERAL DEVELOPMENT PLAN, and ENVIRONMENTAL IMPACT REPORT

June 1978

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION



PRELIMINARY



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# ANTELOPE VALLEY CALIFORNIA POPPY RESERVE

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## RESOURCE MANAGEMENT PLAN, GENERAL DEVELOPMENT PLAN, and ENVIRONMENTAL IMPACT REPORT

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State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
June 1978

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STATE PARK AND RECREATION COMMISSION

P.O. BOX 942896, SACRAMENTO, CA 94296-0001

**EXCERPTS FROM THE MINUTES OF OCTOBER 1978  
Antelope Valley California Poppy Reserve  
Resource Management Plan and General Development Plan**

It was moved by Commissioner Altick, seconded by Commissioner Egizi, to approve the following resolution:

WHEREAS the Director of the Department of Parks and Recreation has presented to this Commission for approval the proposed Resource Management Plan, General Development Plan, and Environmental Impact Report for Antelope Valley Poppy Reserve; and

WHEREAS this reflects the long-range development plan as to provide for the optimum use and enjoyment of the unit as well as the protection of its quality;

NOW, THEREFORE, BE IT RESOLVED that the State Park and Recreation Commission approves the Department of Parks and Recreation's "Resource Management Plan and General Development Plan for Antelope Valley Poppy Reserve", Preliminary dated June 1978, subject to such environmental changes as the Director of Parks and Recreation shall determine advisable and necessary to implement carrying out the provisions and objectives of said plan.

The Chairman called for a roll call vote. Commissioners Egizi, Hailstone, Lutz, Gibson, Altick, and Araujo voted AYE. The motion carried unanimously.

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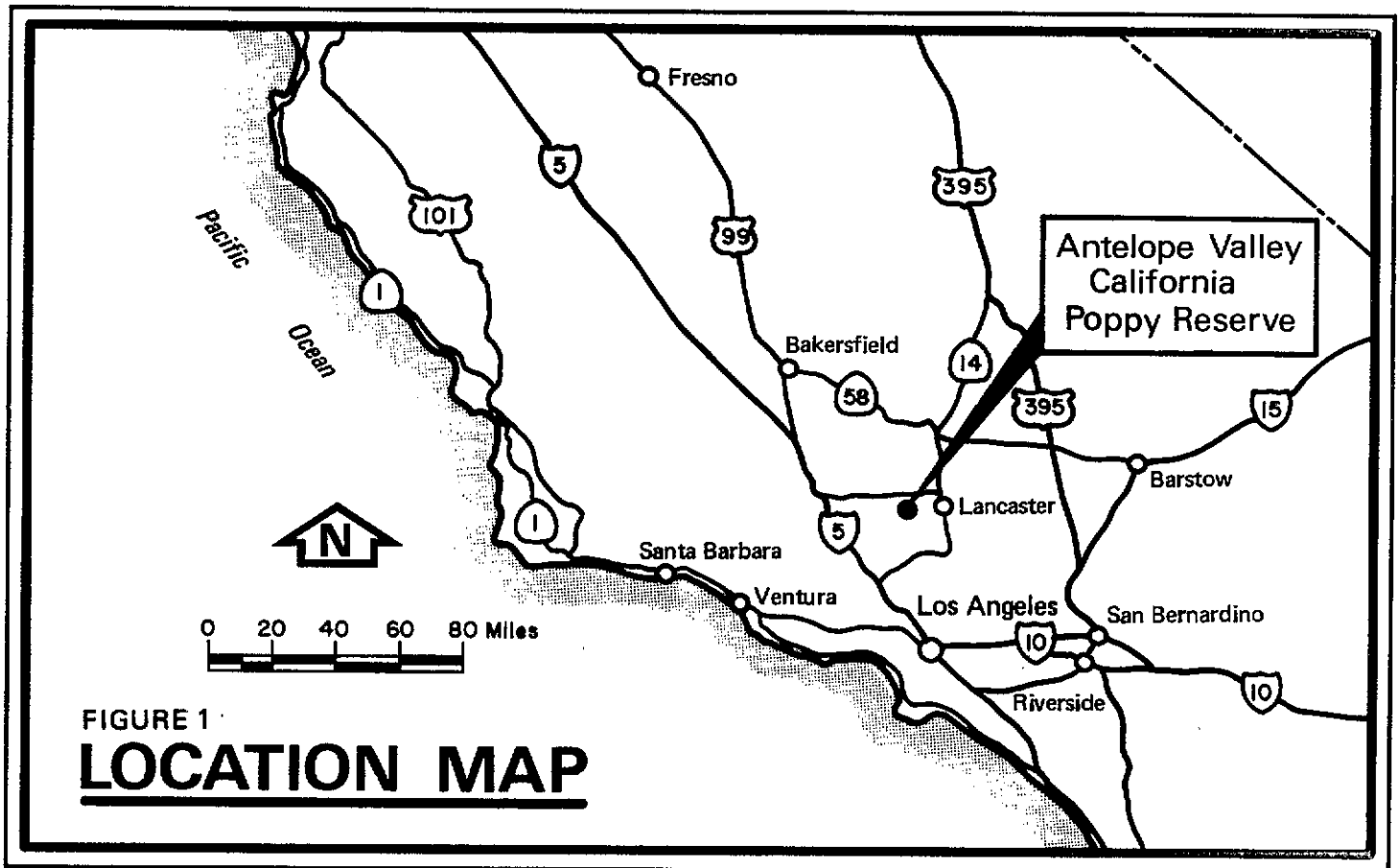
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# SUMMARY

Ever since the early exploration and settlement of the west, California has been noted for its spectacular displays of wildflowers. One species that has consistently attracted attention is the California poppy, Eschscholzia californica, which was designated the State Flower of California by the legislature in 1903.

For several years, many of California's citizens have recognized the need to set aside a substantial area of land dedicated to the preservation of the California poppy. Because of California's continuing population growth, opportunities for future generations to observe massed displays of wildflowers flourishing in abundance have been rapidly disappearing. In recent years, the threat of losing this important scenic resource forever has become more imminent.

Although the actual geographic range of the California poppy is widespread in the state, the region where the flowers attain the most vigorous growth and afford the most spectacular displays for long periods is in the western part of the Antelope Valley, in northern Los Angeles County and southern Kern County.

Largely through the efforts of concerned citizens and organized groups, a campaign was begun in the early 1970s to arouse public interest and support for establishment of a state poppy reserve. The State Department of Parks and Recreation also began a study of the distribution and flowering patterns of the California poppy, and eventually selected for a park site an area in northwestern Los Angeles County along the southwest edge of the Antelope Valley, the western extension of the Mojave Desert. This part of the Antelope Valley ends in a somewhat narrow angle, between the Tehachapi Mountains on the north and the Liebre Mountains on the south.

After these earlier studies, donations and contributions from organizations, corporations, and individuals, together with state and federal funds, have made possible the acquisition of about 676 hectares (1,671 acres) of land within this area.

This document is a comprehensive, long-range plan for development of facilities for both visitor use and operation/management of the Antelope Valley California Poppy Reserve. Day use facilities proposed in the plan include an entrance road and parking, picnic facilities, an interpretive center, a nature study area, an outdoor program center, hiking and nature trails, observation areas, a bikeway access, and a seasonal scenic road.

The overall goal of the Department of Parks and Recreation is to make the reserve available for the enjoyment of the people of California, and to protect its natural and cultural resources from human or other damage.





### Purpose of Plans

The Public Resources Code provides that after each unit of the State Park System is classified, the Department of Parks and Recreation shall prepare a resource management plan and general development plan for that unit. The department must then submit the plans to the State Park and Recreation Commission for approval. It is the responsibility of the commission to schedule a public hearing to consider such approval.

The plan for the Antelope Valley California Poppy Reserve is the result of the combined efforts of interested Antelope Valley citizens; the Antelope Valley Citizens Advisory Committee; the Wildflower Preservation Committee, organized by the Lancaster Womens Club; the California State Parks Foundation; and many professionals within the Department of Parks and Recreation.

The Antelope Valley Citizens Advisory Committee was appointed by the director of the department to work closely with the department's staff in the planning of the reserve. Throughout the planning process, citizen participation was encouraged and facilitated, through a series of public meetings and on-site reviews of the reserve lands.

### Plan Objectives

It is an objective of this planning process to provide a plan that will define appropriate management of resources and development of facilities for the public, consistent with the purpose for which the Antelope Valley California Poppy Reserve was established: the preservation of a unique scenic resource, unencumbered by human influences. This planning process will also provide an informational document for future public use.

It should be noted that these plans are intended by the department to be dynamic planning tools, used as guides for future development and management, rather than static, inflexible documents. They should be reviewed before any new development proposals are carried out, and they should be updated, as necessary, to insure their accuracy and relevance.

The plans will:

Identify the natural and cultural resources in the unit, and provide for their perpetuation, protection, management, enhancement, and interpretation.

Determine the maximum carrying capacity of the unit's lands, and insure that uses planned are within this limitation.

Identify and attempt to provide solutions to existing problems at the reserve.

Provide appropriate recreational opportunities for California citizens, with special emphasis on the needs of urban populations within a two-hour travel time zone of the reserve.

Determine possible environmental impacts of the General Development Plan, and alternatives to the plan.

Provide guidelines for facility development.

Identify lands outside existing reserve boundaries that are of prime concern to present and future environmental values, and to visitor use of the reserve.

Serve as an informational document for the public, reserve management personnel, the Legislature, and local entities.

### Study Area

The Study Area referred to in this report consists of those lands comprising the series of low hills known as the Antelope Buttes and the Fairmont Butte, together with the low valley lying between them (see Study Area Map, appendix). Additional lands outside the watersheds of these two butte systems, as well as existing and proposed state reserve lands, are also included.

The study area is a comprehensive planning unit, consisting of land that affects or potentially affects the management and protection of the environmental, cultural, and recreational resources that are found within Antelope Valley California Poppy Reserve. These resources, and the possible effects that privately or other publicly managed lands within the study area could potentially have upon some of them, are discussed in the Land Use Analysis section of the report (page 15).

It should be noted that lands shown within the study area have been determined by the department to be an area of management concern. It is not intended that all these lands should necessarily be acquired by the department and included in the State Park System. The department believes that through proper enforcement of county planning and zoning restrictions and land use regulations, lands within the study area can be publicly or privately managed in harmony with neighboring state reserve lands.

### Project Description

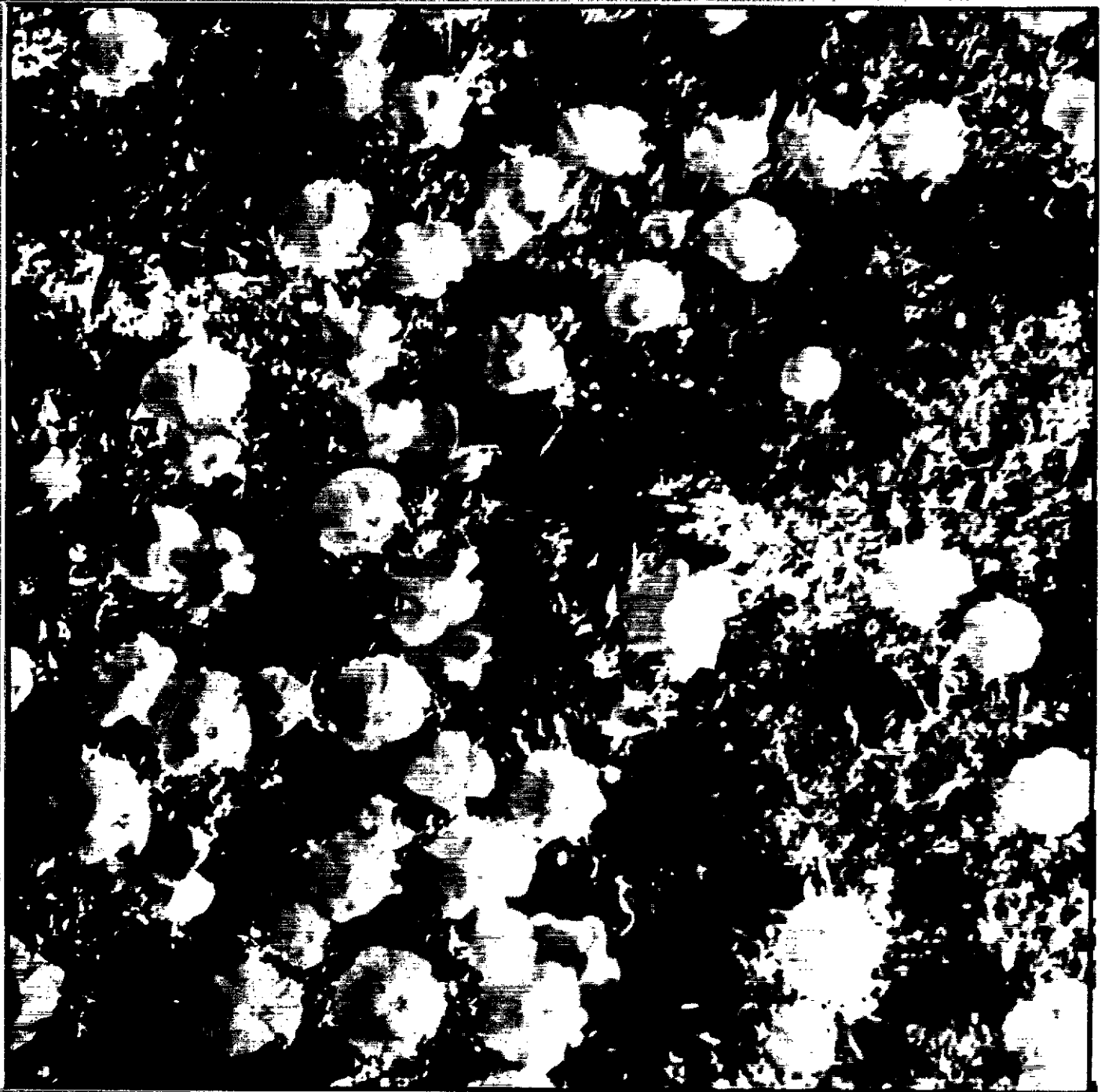
The Antelope Valley California Poppy Reserve is in an area west of Lancaster, known as the Antelope Buttes. Situated along both sides of Lancaster Road, a large amount of land was identified where native poppies grow profusely with exceptional vigor.

The land now under state park management embraces two adjacent systems of high desert hills designated as Fairmont Butte and Antelope Buttes. This new unit of the State Park System is located about 24 km (15 miles) west of the City of Lancaster, and 137 km (85 miles) northeast of Los Angeles. The poppy reserve is also within one to two-hour travel time of the heavily populated Los Angeles metropolitan complex and the Bakersfield metropolitan center.

The Location Map (Figure 1) indicates the general location of the reserve in relation to nearby metropolitan centers. The Regional Map (Figure 2) shows the location of the reserve within the Antelope Valley.



# RESOURCE MANAGEMENT PLAN





## RESOURCE MANAGEMENT PLAN

### General Objectives

The first parcel for the Antelope Valley California Poppy Reserve was donated to the California State Parks Foundation in December 1974; the unit was named and classified by the State Park and Recreation Commission in July 1976. The classification is that of state reserve, which emphasizes strict protection of a rather specific set of natural values.

As in the case of other state reserves established to perpetuate particular species or associations of plant life, the objective of the Poppy Reserve is to make available significant displays of blooming poppies and associated wildflowers for visitor enjoyment, hopefully for as long as possible, and in as many years as possible. This objective is somewhat different from those of other state reserves, where the major effort may be to permit natural influences to hold sway with the least possible interference. The wildflower displays will be made available to visitors as closely as possible, but without significant detriment to other wildflower displays or natural values, and without detracting by visitors themselves or by visitor conveniences or facilities.

The natural values here are somewhat unusual; they are available to people for a limited season, sometimes quite a short one. It is highly desirable, however, to provide facilities to promote an understanding of the area and its resources by visitors who may come when the poppies and other wildflowers are not in bloom.

### Resource Evaluation

The ultimate desirable area for the poppy reserve has been identified (report of December 19, 1974, with map attached) as including some 3,320 hectares (8,200 acres), of which only 676 hectares (1,671 acres), not necessarily of the highest priority, have been acquired. A major objective of the department must be to acquire as much as possible of the total area, in order of identified priorities, as soon as possible.

The poppy reserve lies in a western extension of the Desert and Desert Mountains Landscape Province, close to the border of the Foothills and Low Coastal Mountains Province which almost surrounds it. The vegetative association is basically and originally that of the California Steppe, a community of annual and perennial plants that are mostly herbaceous in nature (see Unique Vegetation Evaluation Map, appendix). Desert scrub vegetation, a community dominated by rather small woody perennials, occupies part of the area. Further research will be necessary to determine accurately and completely the full extent and geographic distribution of these basic communities, as well as the vegetation elements they comprise.

In view of the rather special objectives of this reserve unit, the exact nature of pristine conditions is somewhat less important than in units where restoration of pristine conditions is the primary objective. The blooming of poppies and associated annuals seems sometimes to be actually encouraged by certain disturbances of the surface, which reduce competition and alter microclimatic conditions. In some places where agricultural crop land has been abandoned, poppies sometimes bloom spectacularly, a year or two later. Specific research must be undertaken to determine the effects of specific disturbances or past management practices, as well as those that may be desirable in the future, in order to properly manage the wildflower displays for park system purposes. Of particular interest is the possible use of prescribed fire. Occasional fire was once natural to the area, and may prove to be valuable in the perpetuation and optimum growth of the poppies and associated plants.

The flower displays sometimes cover all slopes nearly up to the summits, where the soil gives way to rocky outcrops. The best and most consistent wildflower displays are on the lower, gentler slopes, where the soil is deeper, more fertile, and has greater capacity for retaining moisture (see Slope Evaluation Map, appendix).

An additional category of resources at the Antelope Valley California Poppy Reserve consists of artifactual remains and evidence of use of this area by prehistoric inhabitants and Native Americans. In the small valley lying between the Antelope and the Fairmont Buttes, there are archeological deposits of great significance (some 20 known sites in all), and there is additional evidence on higher slopes and summits, where rock-shelters were constructed. Although not an original objective of acquisition in this area, the cultural resources are very important, and they must be protected and defended against damage from any form of activity, use, or development.

#### Declaration of Purpose

The Antelope Valley California Poppy Reserve is established to protect and perpetuate outstanding displays of native wildflowers, particularly the California Poppy, the State Flower, and to make these spectacular floral displays available for the enjoyment, inspiration, and education of the people for all time to come. The prime resources of the unit include both the vegetation, much of which is seasonal and disappears during the hot and dry season of the year, and the soil and the terrain on which these plants grow. The department shall take necessary steps to manage these vegetative associations for their perpetuation and enhancement, and to make them available for as long a period of each year as is reasonably possible, within substantially natural parameters.

Interpretive programs and displays shall be undertaken to assist the public in understanding these plants and their ecological relationships, both during the blooming season and at other times of the year. Facilities for visitors shall be designed, located, and constructed so the facilities, and the visitors who use them, will have a minimum impact not only on the vegetation and the flower displays which they provide, but also on the enjoyment of these features by other visitors.



Evidences of remains of prehistoric habitations, wherever they occur within the unit, will also be protected against all kinds of damage caused by construction or visitor uses; and they shall also be interpreted to the public, for better understanding of the meaning and significance of the uses of these lands and resources by early inhabitants. Evidences of previous uses in historic times may also be perpetuated and interpreted.

#### Declaration of Resource Management Policy

All activities, programs, and projects at Antelope Valley California Poppy Reserve shall agree with the Department's Resource Management Directives.

#### Acquisition

The department shall, as rapidly as possible, acquire the balance of the lands necessary to complete the Poppy Reserve, as nearly as possible in the order of established priority.

#### Research

At present, the department has little information concerning the ecological characteristics of the native wildflower displays of the Antelope Valley California Poppy Reserve. Information already available is being assembled, and additional research efforts shall be undertaken, either by the department or by contractors or cooperators, to develop essential information about factors influencing the growth, reproduction, and blooming of native wildflowers and associated plants in the reserve, with emphasis on the California Poppy. Other investigations should be undertaken to develop additional information on the prehistoric inhabitants of the region, their way of life, the resources which they used, and the earlier historic uses of the land.

#### Protection

Every effort must be made to reduce the impact of human intrusions on the unit's resources, whether such intrusions are for the ostensible purpose of making the area available to visitors, or whether they are proposed or undertaken for entirely different and irrelevant reasons. Land uses and construction projects which are detrimental to the primary purposes of the reserve shall be opposed, and banned on the property.

This region has been subjected in the past to extensive and rather heavy sheep grazing, often in trespass, and without arrangements with landowners. Boundary fencing should be used, where appropriate, to prevent such trespass, and also to curtail inappropriate off-highway vehicle or equestrian access. Barbed or strand-wire fencing is best for this purpose, since it is almost inconspicuous, and in harmony with the agricultural character of surrounding lands. Such fencing also allows local migration of indigenous wildlife.



## Botanic and Soil Resources

The protection of botanic and soil resources is of the highest resource management priority. Management objectives shall be consistent with the perpetuation of these resources in a healthy natural or quasi-natural condition, while providing for visitor enjoyment.

Special management techniques may be required to promote the successful continuation of the California Poppy in abundance. These shall be implemented as recommended, in the light of continuing research. It is likely that these techniques may include the occasional burning of parts of the reserve in the off-season. Prescribed burning, or fire management, is a natural form of disturbance, and will therefore be considered first.

The creation of artificial conditions by the application of fertilizer, or by irrigation, shall not be tolerated. These could possibly have short-term beneficial effects, but would likely result in long-term detrimental changes, by altering botanic composition and increasing competitive pressure on native wildflowers.

Native bunchgrasses, which occur in various locations throughout the reserve, shall be encouraged.

## Wildlife

Pronghorn antelope were once indigenous to the valley that now bears their name. However, it would be highly doubtful if the reserve could sustain these gregarious animals if they were reintroduced. The reserve is not sufficiently large to satisfy the antelope's vast migratory needs, nor could the vegetative complex (which consists almost entirely of annual and perennial plants) supply forage needs year-round. In addition, there is no free water on the reserve.

Wildlife species currently indigenous to the reserve shall be protected from depredation.

## Visual Quality

The resources of the reserve have a particular esthetic importance. Visual integrity, therefore, must be especially considered in the development of facilities and use of the reserve.

Parking and visitor center facilities should be placed near the periphery of the reserve, or in an area so they will not be overly conspicuous or disrupt the natural scenery. The least desirable locations are ridgelines and upland slopes. Since the basic purpose of the reserve -- to make the spectacular floral displays available for public enjoyment -- suggests an emphasis on passive or contemplative uses, careful consideration will be given to providing access facilities suitable to the needs of people seeking these forms of enjoyment, especially the handicapped, the infirmed, and the elderly.

Trails leading to ridgetops should follow ridgelines which run perpendicular to the major viewing directions, south and north. Likewise, trails and roads should not be placed on steeper slopes which face the visitor center or other major viewing areas.

Powerlines can be disruptive, particularly to photographers. Necessary utilities shall be located underground. Construction of additional long-distance transmission lines across the reserve should be firmly resisted, and the relocation of those already in existence should be encouraged, when the opportunity arises.

#### Cultural Resources

All cultural features shall be protected against all kinds of damage, whether caused by construction or by visitor use. Consideration shall be given to establishing one or more cultural preserves, to embrace the areas where prime cultural resources may be identified within the unit.

#### Interpretation

As previously indicated, the department shall undertake an active interpretive program to assist the public in enjoying and understanding the natural and cultural resources of the Antelope Valley California Poppy Reserve, both during the wildflower season and other times of the year.

#### Recreation

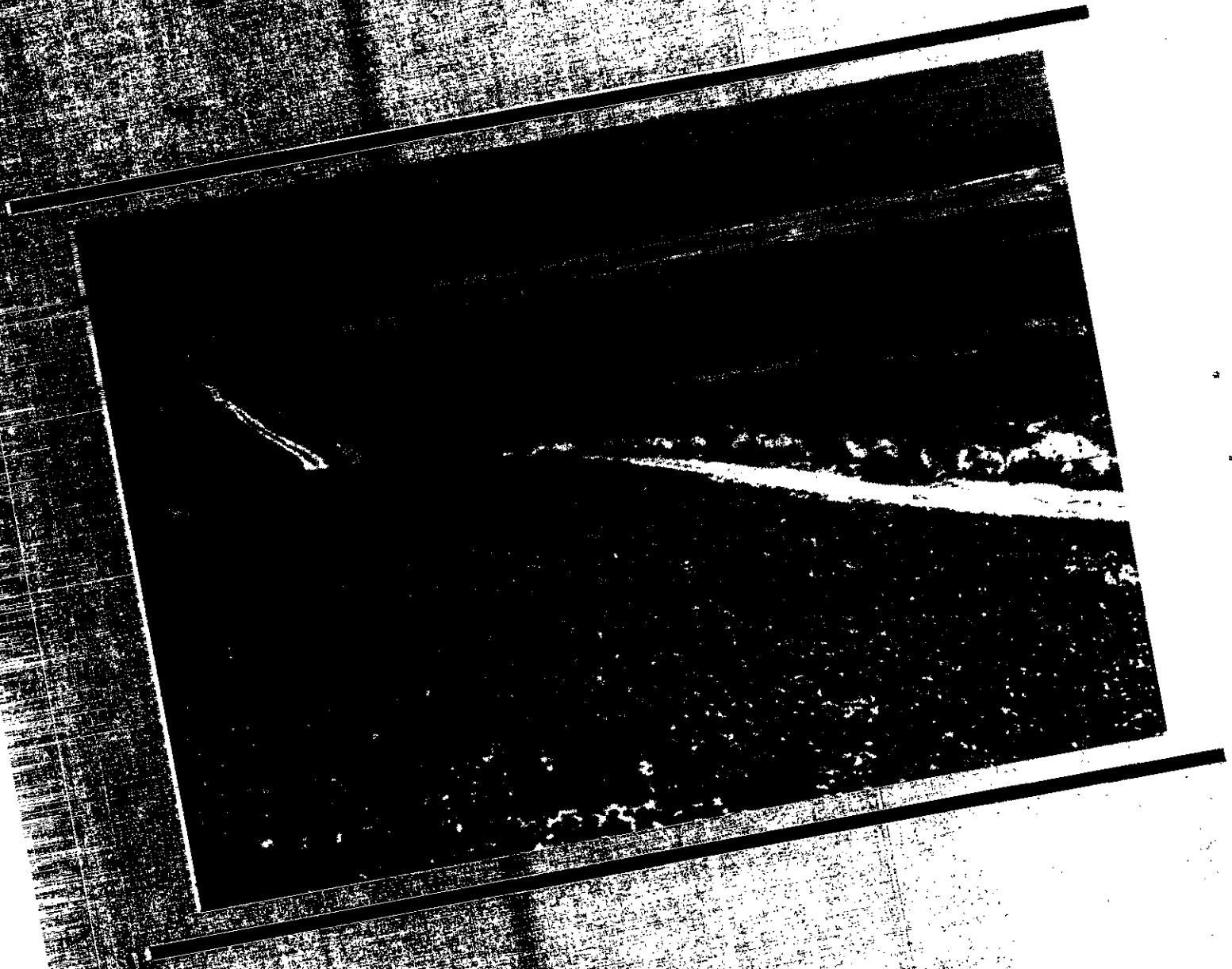
Active recreational pursuits by visitors are likely to be incompatible with the purposes and prime resources of the reserve. In many ways, they may conflict with the passive, contemplative pursuits for which the reserve was established. Those pursuits related to the resources themselves, such as nature study, photography, or painting, can be accepted within the unit. Any activity or pursuit that either threatens the integrity of the resources or interferes with enjoyment of the resources by other visitors must be critically examined, and steps should be taken to prevent it from becoming accepted or established as an appropriate use.

#### Use Intensity

Ecologically, and for the most part visually as well, this unit can tolerate light use only. Acceptable compromises can be made in the area of the visitor center, selected on criteria previously stated, to allow visitor enjoyment. By confining visitors to trails, and by closely regulating use patterns, heavier use intensities can be locally accepted during the flowering period. Actual results will indicate necessary modifications in use patterns. (See Allowable Use Intensity, page 17.)

# GENERAL DEVELOPMENT PLAN





## GENERAL DEVELOPMENT PLAN

### Introduction

The General Development Plan has been derived from criteria established during research and analysis at the reserve (see Allowable Use Intensity and Proposed Land Use), and from study and analysis of material presented in this report. The plan delineates appropriate land uses for various development elements such as roads and parking, day use facilities, interpretive facilities, trails, and service and administrative facilities.

It should be noted that the numbers of facilities used in the following text should be considered only as general estimates of development potential and need. Actual figures may vary somewhat in response to more detailed site survey work, because of unforeseen changes in recreational trends and demands, or subsequent resource management decisions and techniques. It is recommended that visitor use patterns at the Antelope Valley California Poppy Reserve be frequently reassessed, to determine the most appropriate location, intensity, and type of development.

The General Development Plan Map (figure 8) illustrates the proposed plan for development.

### Land Use Analysis

#### Existing Land Use

Four categories of land use exist within the study area: agricultural; low density residential and commercial; undeveloped watershed under private management; and undeveloped watershed under state park management. Most of the area is made up of undeveloped watershed under private management (see Existing Conditions Map, fig. 4).

#### Agricultural Lands

Part of the lands within the study area are in this category. The agricultural uses consist basically of cattle and sheep rangeland and dry grain farming. Various parts of the study area (especially around the Antelope and Fairmont Buttes) have been subjected to extensive sheep grazing, which has resulted in some significant impacts on existing vegetation. Some parts of the study area (sections 5, 6 and 33) on the valley floor had been cultivated in the past, resulting in alteration of vegetative patterns (native bunch grasses). If the environmental values of this state reserve are to be protected, it is essential that identified ecologically sensitive areas remain undisturbed, and that private owners of all lands within the study area exercise proper land management policies, to prevent significant alteration of the area's natural character.

### Low-Density Residential and Commercial Lands

There are only two current instances where these land uses occur within the study area. The first is a one-story, single-family residence, located in the northwest part of Section 5. The second is a small local roadside business, located at Fairmont Corners.

In addition to these existing uses, there are abandoned residences in various stages of decay in the southwest part of Section 31 and the northwest portion of Section 32. There is also an abandoned rock quarry at the southeast base of Fairmont Butte.

### Undeveloped Watershed Lands Under Private Management

In general, these lands have moderate slopes and shallow soils, covered by native and nonnative grasses. Local zoning and land use regulations should continue to encourage management of these lands as undeveloped watershed.

### Undeveloped Watershed Lands Under State Park Management

At present, all of the Antelope Valley California Poppy Reserve is undeveloped. Future uses, development, and activities are discussed in the Proposed Land Use and General Development Plan sections of this document.

### Regional Planning Considerations

Long-range plans prepared by other governmental agencies have been identified which may potentially affect Antelope Valley California Poppy Reserve. These plans, if implemented, would have a direct impact upon planning and management goals for the unit.

### Transportation

The Los Angeles County Road Department Master Plan of Highways recommends a system of road alignments passing through or near the reserve site. If constructed, many of these roads would directly affect reserve resource values.

The State Department of Transportation has indicated two adopted freeway routes on or through the reserve site -- Route 48 north of the site and Route 138 to the south. Both highway projects have been placed on low priority status (1975) and no funds have been scheduled for construction.

### Water Supply

The State Water Project, administered by the Department of Water Resources, recommends a storage reservoir to be located within and adjacent to the reserve site. The stated project purpose is to provide water storage capability for potential users within the Antelope Valley East Kern Water District. No funds have been made available for this proposal and no date has been established for construction. If constructed, the reservoir project would partially inundate reserve lands and influence future recreation uses in the area.

### Allowable Use Intensity

Shallow, erodible soils, steep slopes, fragile ecosystems, and other environmental and development restrictions indicate that most of the existing reserve lands are suitable for low-use intensity only. The remaining 3 percent of lands under state reserve management are considered suitable for higher use intensities.

With data derived from the resource analysis, allowable use intensities can be determined. The allowable use intensity, or recreational carrying capacity of a given area, is defined as the maximum number of people that can be supported without unduly compromising the resource values of that area. In addition to the intrinsic carrying capacity of the land, other influencing factors, such as management procedures and types and quantity of facilities, directly affect the determination of potential carrying capacity. For example, a developed trail in a previously undeveloped low-use intensity area could permit moderate-use intensity, without detracting from the quality of visitors experiences. A similar assumption can be made for areas within the viewshed of such a trail, as long as low-use intensities only are allowed.

Because the reserve has only recently become part of the State Park System, reliable guidelines are unavailable about established visitor use patterns. Instead, planners relied upon known, appropriate criteria, such as steepness of slope, scenic or visual quality, soil erodability, soil moisture, vegetative associations, and climatic conditions. These determinations resulted in the assignment of three levels of use intensity, based primarily on existing inherent resource factors. These should be considered as broad land management guidelines only. Use intensities are listed below, and are shown graphically on the Proposed Land Use Map (fig. 7, appendix).

#### High-Use Intensity (15 or More Persons Per Acre)

Only about 14 hectares (35 acres) are considered suitable for high-use intensity. The focal point of day-use facilities will be concentrated within a relatively limited area, on lands having comparatively low resource values, on gently sloping ground, and away from steeper slopes or high ridge tops. When made accessible, these lands can accommodate a density of 15 or more persons per acre, and a variety of passive recreational activities.

#### Moderate Use Intensity (5 to 15 Persons Per Acre)

Since driving and walking for pleasure are known to be one of the principal visitor activities at the reserve, roadways and hiking trails will be among the primary features. Lands devoted to this purpose are considered suitable for moderate-use intensity, and will include a seasonal road with turnout parking areas, a network of hiking trails, and a bikeway access.

### Low Use Intensity (0 to 5 Persons Per Acre)

The approximately 1600 remaining acres are considered suitable for low use intensity only. Significant portions of these lands contain fragile and often unique vegetative associations, which could be severely damaged by higher use intensity. Protection of the visual integrity of the Antelope Buttes, an important scenic resource, is an additional reason for designating low-use intensity. These lands are considered suitable only for walking trail-type recreational development.

### Proposed Land Use

The proposed land use plan is a result of the material and processes presented in the preceding sections. Through careful analysis, appropriate areas were determined for land uses compatible with the reserve classification.

97.4 percent of the lands within the study is recommended for the natural preservation category. The remaining areas are recommended for categories of passive resource interpretation (0.6 percent) or active resource interpretation - administrative services (2.0 percent). These areas are shown in the Proposed Land Use Map, figure 7.

The following are brief descriptions of land use categories deemed appropriate for the Antelope Valley California Poppy Reserve:

#### Natural Preservation

This category includes both state and private lands. It is proposed that state reserve lands in this category be managed in a natural state, with no development. In this way, factors essential to the integrity of the reserve can be maintained. Those factors include natural-archeological preservation, viewshed protection, watershed protection, and provisions for open space.

Private lands in the category of natural preservation require management policies which are in harmony with proposed state reserve land uses. It is suggested that these lands be managed in the same way as state-owned lands in this category. Privately owned lands are currently classified as non-urban residential or hillside management in the North Los Angeles County General Plan. It is recommended that the open space category (according to the North Los Angeles County General Plan) be extended to these areas as they become part of the state reserve. It is also recommended that lands in the study area classified by the county general plan as non-urban residential be changed to the county general plan's habitat management classification. This change would be more compatible with the reserve's objectives of natural-archeological preservation and viewshed protection.



### Passive Resource Interpretation

This category includes only state lands. It is proposed that these areas be managed in a natural state with only minimal development, such as observation points and appropriate hiking trail corridors in natural preservation areas. Trails near sensitive plant communities should be monitored, to insure that reserve visitors do not stray from the developed trails and disrupt those communities.

### Active Resource Interpretation-Administrative Services

This category includes only state lands. These areas are proposed for development of interpretive facilities, administrative facilities (office-sales), a picnic area, parking lots, employee residence, and a maintenance-storage area. The amount of visitor use recommended for these areas is discussed in the Allowable Use Intensity section. The location and extent of proposed development is discussed in greater detail in the General Development Plan.

## Resource Analysis

### Physical Features

#### Climate

In general, the climate of the reserve site is characteristic of the high desert climatic zone: hot, dry summers, and cool winters. Distinct micro-climatic variations occur at the reserve, however, due in part to the closeness of the Liebre Mountain Range to the southwest, and the higher elevation of the surrounding valley floor. Annual precipitation averages 39.1 cm (15.4 inches), which is considerably higher than the mean average for the Mojave Desert region. Temperatures are variable, with noticeable fluctuations seasonally and diurnally. The hottest months are June through September, with temperatures reaching more than 100°F. The coldest months are from December through March, when temperatures fall into the 20s and below. In general, the prevailing wind patterns in the Antelope Valley are from the southwest, with occasional winds from the northwest. Wind velocities are generally light to moderate. Stronger velocities, however, are not uncommon, since the reserve is directly exposed to air movement passing between the Tehachapi Mountains and the Liebre Mountain Range.

### Ecological Region and Significance

The Antelope Valley California Poppy Reserve lies within the Desert and Desert Mountains Landscape Province. It is an example of certain aspects of the desert formation, particularly desert grassland. Desert woodland, and other vegetative associations and plant communities occur on some nearby parts of the desert, but are not well represented within the project boundaries. Ecological variations occur in rocky places and along washes. This project was selected and located for the special purpose of perpetuating an outstanding display of desert wildflowers, primarily California poppies. However, it possesses numerous additional ecological and other values.

## Scenic Resources

Lying as it does in the Antelope Valley, the lands of the reserve afford interesting views of the Tehachapi Mountains to the north, and the somewhat closer Liebre Mountains to the south, which are within the Angeles National Forest. The hills and buttes within the project are of scenic interest, adding diversity to the landscape, providing in varying combinations both foregrounds and backgrounds for local desert scenes, and increasing the interest of the views when the wildflowers are in bloom. Views from the summits of the buttes can be spectacular in clear weather. There are some distractions from the scenic values, particularly in the form of power lines (one of which crosses the project) and grading for roadways and other construction projects. The southern California branch of the California Aqueduct passes across the hills immediately south of the project.

## Geological Resources

The San Andreas Rift Zone, the best known and one of the most active earthquake faults in California, lies at the north base of the Liebre Mountains, just a few kilometers south of the project. The Garlock fault system, a major geologic feature in the Tehachapi region, branches from the San Andreas system, about 40 km (25 miles) from the project. The Antelope Valley was a freshwater lake in Pliocene times, and received thousands of feet of sediments, presumably resulting from the uplift of the Tehachapi Mountains and the relative depression of the adjoining desert.

Fairmont Butte and the Antelope Buttes represent islands in the Pliocene lake, the former consisting of Miocene rocks and the latter of Mesozoic granitic material. Numerous rock outcroppings occur at the higher levels. The various soils derived from these and other sources in the region are generally shallow, have low fertility, and are subject to considerable erosion, especially on the steeper slopes. Valley soils of alluvial origin are somewhat deeper and more productive, and the erosion is lower.

## Biological Features

### Vegetative Associations

Pristine vegetation of the buttes was apparently of the California steppe, while the adjacent valley floor supported Joshua Tree woodland--some of which remains today in places. The lands of this project are today completely dominated by herbaceous vegetation, although sagebrush scrub and numerous species of annual and perennial grasses occur in a few places. While there are numerous species of grasses present, most of the plant life consists of forbs, most of these being annuals.

The greatest interest in the reserve lies in the California poppies, which exist in several different forms (see Unique Vegetation Evaluation Map, fig. 6). One form is a perennial, which develops each year into a bush about 25 to 30 cm (10 to 12 inches) high from a perennial root somewhat resembling a carrot. It is covered in the spring season (usually April) with large numbers of extremely showy, brilliant orange flowers, sometimes almost 7.5 cm (3 inches) across. It continues to bloom later in the year, but the flowers are much smaller.

The annual form of the poppy is much lower, sometimes a rosette only 12 or 15 cm (5 or 6 inches) in diameter, and 3 or 4 cm (1 or 2 inches) above the ground, but with one or two very large blossoms. These small plants, when growing close together, provide spectacular displays. It is probable that there is more than one species of poppy (genus *Eschscholzia*) native to this locality. A firm determination of the botanical entities involved depends on more complete information.

Other plants noted within the project during the spring blooming season include several species of lupine, owl's clover, phacelia, gilia, evening primrose, cream cups, goldfields, beavertail cactus, and several others, in various localities and in different seasons. The department is not aware of the occurrence here of any plant species classed as rare or endangered.

### Wildlife

Animal species found in the area include some typically found in the desert and Great Basin regions, as well as those that might be found on the west side of the Sierra. This is true of the bird population, and to a lesser degree, of mammals and reptiles. Typical species of the area include the red-tailed hawk, sparrow hawk, burrowing owl, mourning dove, white-throated swift, horned lark, black-tailed hare, cottontail, kangaroo rat, antelope ground squirrel, deer mouse, coyote, several kinds of lizards, one or two species of rattlesnakes, desert tortoise, and California king snake. Various migratory birds can be found at certain times of the year.

There are no known rare or endangered animals that live in the project area year-round. It is known that California condors occasionally pass by the area on foraging flights; they have been observed in the vicinity. This endangered species currently breeds in the mountains of Ventura County to the west.

## Cultural Resources

### Archeological Resources

Before settlement of this region by peoples of European origin, the native Indians maintained a route of travel through the Antelope Valley leading westward toward Tejon Pass, which was a key point in prehistoric trade and communication. The project area was once part of the territory of the Kitanemuk, a Shosone group. They almost certainly used the buttes within this project as vantage points from which to observe their domain and scrutinize the travel route. The buttes also offered shelter, especially from the wind.

In the valley between Fairmont and Antelope Buttes, there was a source of water, possibly once permanent, and in later times at least seasonal. Investigation has revealed evidence of extensive habitations along this draw, extending over a long period. Workshop sites and house rings have also been discovered on the crest of the Fairmont ridge, and quarry sites have been found at several points on the slopes. Surface artifact scatter has been noted along the draw between the buttes for a distance of nearly 3 km (2 miles). One investigator characterized the complex as "one of the largest and most significant archeological sites in the Antelope Valley," and as being "of tremendous significance." Four officially recorded sites (LAN 296 through LAN 299) are within the area.

#### Historical Resources

Explorers and traders, like the Indians before them, established and used a route of travel through the Antelope Valley, westward toward Tejon Pass. Almost surely, they made their way to the tops of the buttes to observe the countryside. However, there has been no known occurrence of major historical events within the boundaries of the reserve.

During the construction of the nearby Los Angeles Aqueduct between 1909 and 1911, a quarry and rock crusher were operated on the southeast flank of Fairmont Butte. The concrete foundations of the crusher are still visible.

#### Recreational Resources

Because this project is being acquired for the specific reason of perpetuating an outstanding display of wildflowers, there are few active recreational pursuits which would be compatible with this objective. Roadways and trails from which to view the flower displays in season should be among the primary features of the unit. Driving and walking for pleasure are, of course, among the most popular of all recreational pursuits. Related to them, and to the objectives of the project, are photography and painting, which are now engaged in by visitors to the area. Picnicking, with or without tables, would be compatible if it were incidental to visits to the reserve for other purposes. The provision of a connecting bikeway link between the reserve and the existing California Aqueduct Bikeway nearby would also provide an additional compatible recreation activity.

#### Proposed Developments

This section describes in detail the department's proposals for development at the Antelope Valley California Poppy Reserve. These include facilities for interpretive programs, administration and personnel housing needs, and recreation use.

The purpose of the proposed development is to enhance visitor enjoyment of the reserve, consistent with the policies of the Resource Management Plan. In keeping with the reserve's interpretive goals, the proposals emphasize visitor understanding of natural values (including California Poppies and other wildflower species), rather than active recreational pursuits.

See the General Development Plan Map, (fig. 8, appendix).

### Entrance Road

Access to the reserve will be provided from Lancaster Road, near the alignment of 150th Street West. A new entrance road with a control gate will be located parallel to and west of an existing dirt road on lands to be acquired with available Bagley Conservation Fund money. Acquisition of these lands will provide legal access into state-owned reserve lands, and will also provide needed buffer space from neighboring private lands.

The new entrance will provide improved safe sight-distances for visitors exiting and entering traffic along Lancaster Road. The road will follow a curving, northerly alignment for a distance of about .4 km (1/4 mile), and will terminate near the interpretive center building, at the base of a south-facing slope. Parking for about 150 cars, a turnaround with a passenger unloading zone, and parking for 3 buses will be provided in this area. An unpaved overflow parking area for about 100 cars will be provided near the permanent parking, to accommodate visitors during periods of heaviest visitation. An additional small turnout parking area, to accommodate persons who have limited time for viewing wildflower displays, or who do not wish to enter the reserve, will also be provided near the entrance.

### Day-Use Facilities

Facilities will be provided only on a day-use basis, consistent with the definition of state reserve classification. The proposed development is intended to enhance visitor experience at the reserve by facilitating interpretive programs and passive recreational activities. Day-use facilities proposed for the reserve include:

#### Interpretive Center

An interpretive center building will be provided, to orient visitors to the reserve. It will also provide opportunities for interpretation display, and will serve as an educational facility for school groups. In addition, the center will include administrative offices, a sales area, and restrooms. Designed with energy-conserving concepts, it will serve as a showplace of such methods.

The interpretive center location, as shown in figure 8 , was determined to be the most appropriate, after extensive study of various alternatives. The principal factors that determined the proposed site include:

- The site is within close walking distance of many of the vistas, poppy fields, and interesting ecological features of the reserve.
- The site is next to "the swale" (see General Development Plan Map, (fig. 8). where there is some protection from prevailing winds, and greater opportunity for comfortable outdoor interpretive activities. These activities should take place near the interpretive center.
- Gradual south-facing slopes on the proposed site provide the best opportunity for an energy conserving building.

- The site is a relatively inconspicuous place, not too far from the periphery of the reserve; consequently, any development there would not significantly disrupt vistas.

#### Nature Study Area

The nature study area should be close to the interpretive center. The location of this area helps generate indoor-outdoor relationships which are beneficial to an interpretive program. The proposed nature study area will include representative native plant species, a short self-guided interpretive trail adapted for the elderly and handicapped, demonstration areas, and outdoor exhibits. The nature study area and the interpretive center functions are so closely related to each other that they should be considered as one unit.

#### Program Center

The program center should be located a short distance north of the nature study area within the area referred to as "the swale" (fig. 8). The program center, consisting of seating built inconspicuously into the hillside, will provide an outdoor facility for interpretive talks, demonstrations, and programs. This facility will seat about 75 to 100 persons, and is located within a fairly wind-sheltered area.

#### Trails and Observation Points

The trails and observation points proposed for the reserve are shown in figure 8. They offer visitors the opportunity to experience some of the reserve's interesting features. The trails will be of minimal widths, and will follow the natural grades when possible, to provide comfortable, easy walking, and to minimize adverse visual impact. Trails will be marked to identify the destination and travel distance. Observation points would consist of minimally cleared areas, with low-profile interpretive panels and some inconspicuous seating. A brief description of proposed trails:

The short trail to North Godde Hill provides a grand panoramic view of Fairmont Butte and the Antelope Valley. A discussion of geology would be appropriate for this walk. It could also call attention to the best native bunchgrass stand in the reserve, and the unique beavertail cactus located there.

A trail along South Godde Hill provides a panorama of poppy fields to the south, and the Liebre Mountains beyond.

A trail to the westernmost Antelope Butte promontory will provide good views of Lancaster, Fairmont, and the Antelope Valley.

Another short trail will take visitors to good viewing points at the saddle between the two Godde Hills, or the saddle where the dirt road crosses over to the north.

Longer trails to the eastern parts of the Reserve offer good regional vistas of the Antelope Valley, Lancaster, the Liebre Mountains, the Tehachapis and the Mojave Desert.

### Picnic Area

A small picnic area will be located near the interpretive center and parking area (fig. 8). The area will have 15 picnic tables, trash receptacles, drinking water, and an information kiosk. The kiosk will provide orientation maps, information about significant physical and biological features, reserve rules and regulations, and announcements of interpretive activities. Grading, drainage, and removal of plant material should be minimized, to avoid potential adverse visual impact.

### Seasonal Road

To provide access by motor vehicles to the area known as Rattlesnake Hill in the eastern part of the reserve, a seasonal road will be built. This road to be open to visitor traffic during the wildflower blooming period only, and will begin at a control gate near the interpretive center. Alignment of the road will follow natural contours as much as possible. Minor improvements will be limited to a smooth-graded gravel surface and drainage structures as required. One or two turnout parking areas and a 15-car parking area near Rattlesnake Hill will also be provided. During the rest of the year the road will be available for administrative, emergency, or patrol use. Other proposed administrative roads for patrol or emergency use are indicated on the General Development Plan Map (fig. 8).

### Bikeway Access

Bicycle use of the existing California Aqueduct Bikeway, about 1.6 km (1 mile) to the south, has been steadily increasing. It is recommended that a new bikeway loop be established to provide a connecting link with the reserve for Aqueduct bicyclists (see Proposed Land Use Map, fig. 7). The new bikeway could be established on county roads, connecting with the Aqueduct Bikeway at Avenue H, then north on 160th Street West to Lancaster Road, then east to the reserve entrance. The rest of the loop could continue on Lancaster Road to Munz Ranch Road, then south, to re-join the Aqueduct Bikeway. From the entrance, the bike trail would parallel the entrance road, and would terminate at the interpretive center complex. For added convenience and security, bike racks would also be provided near the interpretive center building.

### Interpretive Evaluation

The Antelope Valley California Poppy Reserve possesses rich evidence of Native American and early Californian occupation. It is an outstanding example of diverse plant and animal communities representative of the California Steppe, and it is a fine example of the physical processes which shaped the Antelope Valley. Taken together, all of these characteristics provide the basis for a varied interpretive program. The major themes to be interpreted at the reserve are:

### Biotic Communities Theme:

Many of the plant associations common to the California Steppe and Desert Scrub communities can be found at the reserve (native grasses, sagebrush scrub, and annual and perennial forbs). Of greatest interest among the wildflower community is the California Poppy, which is the dominant species, blooming in spectacular profusion in the spring. These plant communities support a variety of mammals, birds, and reptiles, typically found in the desert and Great Basin regions.

### Native American Theme:

Investigation has revealed evidence that the Antelope Buttes and Fairmont Butte areas were extensively occupied by early inhabitants, probably the Kitanemuk. The buttes were probably used as vantage points, and as a camp or village site. Most of the archeological evidence has been discovered in the valley between the buttes, and on the crest of Fairmont Butte.

### Historical Theme:

Early traders and explorers, like the Indians before them, established a travel route through the Antelope Valley, westward toward Tejon Pass. The buttes very likely afforded a vantage point for observation, and a sheltered campsite. In more recent times, the area has been used as rangeland for livestock, and for dry grain farming. The remains of a quarry and rock crusher are still visible on Fairmont Butte. The materials from the quarry were used in construction of the Los Angeles Aqueduct in 1909-1911.

### Geology Theme:

In Pliocene times, the Antelope Valley was a freshwater lake. Fairmont Butte and the Antelope Buttes at that time rose above the lake surface as islands, the former consisting of Miocene rocks, and the latter as Mesozoic granitic material. The San Andreas Rift Zone lies at the north base of the Liebre Mountains, only a few kilometers to the south. The Garlock Fault System, a major geologic feature in the Tehachapi region, branches from the San Andreas system about 40 km (25 miles) from the reserve.

### Interpretive Program

The primary interpretive emphasis will focus on the biological resources within the Antelope Valley California Poppy Reserve, especially the California Poppy. Various media and methods will be employed to portray primary and secondary themes.



### Interpretive Center

The provision of enclosed space for visitor orientation, multi-media presentations, exhibits and displays, office space, restrooms, and a sales area will be the principal functions of the interpretive center building. Consideration should be given to providing sheltered outdoor areas for exhibits and displays, and observation of the scenic resources of the reserve. Also, the needs of organized groups and school children should be taken into account in designing the building.

### Nature Study Area

A small nature study area next to the interpretive center should be established. A self-guiding nature walk would facilitate visitors' understanding of native plant communities. Consideration should be given to the needs of physically handicapped and elderly persons in development of this (and other) interpretive facilities.

### Program Center

A wind-sheltered site within easy walking distance of the Interpretive Center will provide a suitable outdoor seating area for interpretive talks, lectures, and demonstration projects. This facility should provide seating for 75 to 100 persons, and should be designed to fit into the natural surroundings.

### Trail System

An important development feature of Antelope Valley California Poppy Reserve will be a system of hiking and nature trails, originating near the Interpretive Center. Many of these trails will provide excellent opportunities for self-guiding interpretive walks, and close observation of natural resources. Other trails will lead to more remote areas and vista points, for observation of scenic panoramic views of the Antelope Valley. Interpretive media should consist of low-profile exhibits or panels.

The interpretive effort at the Antelope Valley California Poppy Reserve should periodically provide research of methods and media forms which will help achieve a balanced program throughout the year. The intensity of visitor use during the spring blooming period could be alleviated through broader interpretation of other biotic communities, geologic features, and cultural history, whenever appropriate.

### Administrative and Maintenance Facilities

Administrative and personnel housing facilities will include a staff office or unit headquarters to be located within the interpretive center, maintenance facilities, including a service yard, and an employee residence (see General Development Plan Map, (fig. 8). An existing wood frame farmhouse, located within the private lands now being acquired, can be converted to employee residential use. A small, fenced service yard, containing storage facilities for equipment and supplies, can be established within a suitable area next to the farmhouse. Necessary utilities are now available at this location. A service road, connecting with the main entrance road, will provide access for reserve personnel.

A basic administrative function within the unit is provision of adequate security at all times. Since the reserve is limited to day-use activities only, operating hours for opening and closing must also be enforced. Permanent personnel must, therefore, be housed in or near the unit year-round.

An alternate location for the service yard and housing facilities exists on a parcel of surplus Department of Water Resources land on Avenue H, near the California aqueduct. It is recommended that this land, about 2.8 hectares (7 acres), be acquired and used for this purpose. At that time, the existing farmhouse and service yard could be removed, and the site restored to a natural condition.

#### Utilities Considerations

Current utilities in or near the existing reserve consist of overhead electrical power and telephone lines, extending about 305 meters (1000 feet) north from Lancaster Road to an existing occupied farmhouse along the existing dirt access road. Water is supplied from a well near the residence; a septic system with leach lines is the present means of sewage disposal. When the proposed General Development Plan is implemented, utilities need to be upgraded and extended, to provide adequate utility service for development facilities. Therefore, these items are recommended:

##### Water

To provide an adequate water supply, a new well (6" minimum diameter) should be drilled in the area immediately west of the existing access road, and near Lancaster Road. An underground water line should be extended from the well to a storage tank, located at a higher elevation than the proposed Interpretive Center. This, in turn, would provide adequate gravity pressure flow, and would eliminate the need for a water pump between the storage tank and the Interpretive Center. It is also recommended that the storage tank be placed completely or partially underground, to eliminate or reduce potential adverse visual impact on the reserve environment.

##### Electricity and Telephone

It is recommended that because of their adverse visual impact, existing overhead electrical power and telephone lines should be removed and placed underground. These lines will be extended to the proposed Interpretive Center, to be used as a backup emergency communications and power source. It is recommended that the main energy needs of the proposed development facilities be provided for through the use of appropriate technology and energy conserving concepts.

##### Sewage

Public sewer service is not now available near the reserve. Therefore, it is recommended that additional septic facilities with leach lines be employed to provide for anticipated sewage needs of the proposed development, if the current system proves inadequate. Placement of these facilities should be carefully considered, to protect important resource values.

## Recommendations

The making of planning decisions that will determine future development and management of the Antelope Valley California Poppy Reserve must be based on a practical, workable plan. The recommendations contained in this plan are intended to provide for public enjoyment of the reserve, consistent with preservation and protection of the resource values within it.

These recommendations are:

Land Acquisition: The Department of Parks and Recreation should continue to acquire additional lands previously identified as being essential to proper preservation, enhancement, and effective portrayal of large areas of native poppies and associated wildflower species.

Research: The department, cooperating with other government and private entities, should undertake continuing research to determine and initiate the most effective management techniques for perpetuating all significant resources, with special emphasis on the California Poppy.

Recreation Uses: Only those recreation uses which are most compatible with important resource values should be permitted, such as low-density, nonintensive, low noise, low technology recreation activities.

Development: Development should be limited to those facilities appropriate to meet operational needs and the day-use needs of the visiting public. Proposed development includes:

- Entrance road, turnaround, and parking
  - Permanent spaces . . . . . 150
  - Overflow spaces (unpaved). . . . . 100
  - Bus spaces . . . . . 3

- Interpretive Center
  - Building to include restrooms and park office

- Family Picnicking
  - 15 tables

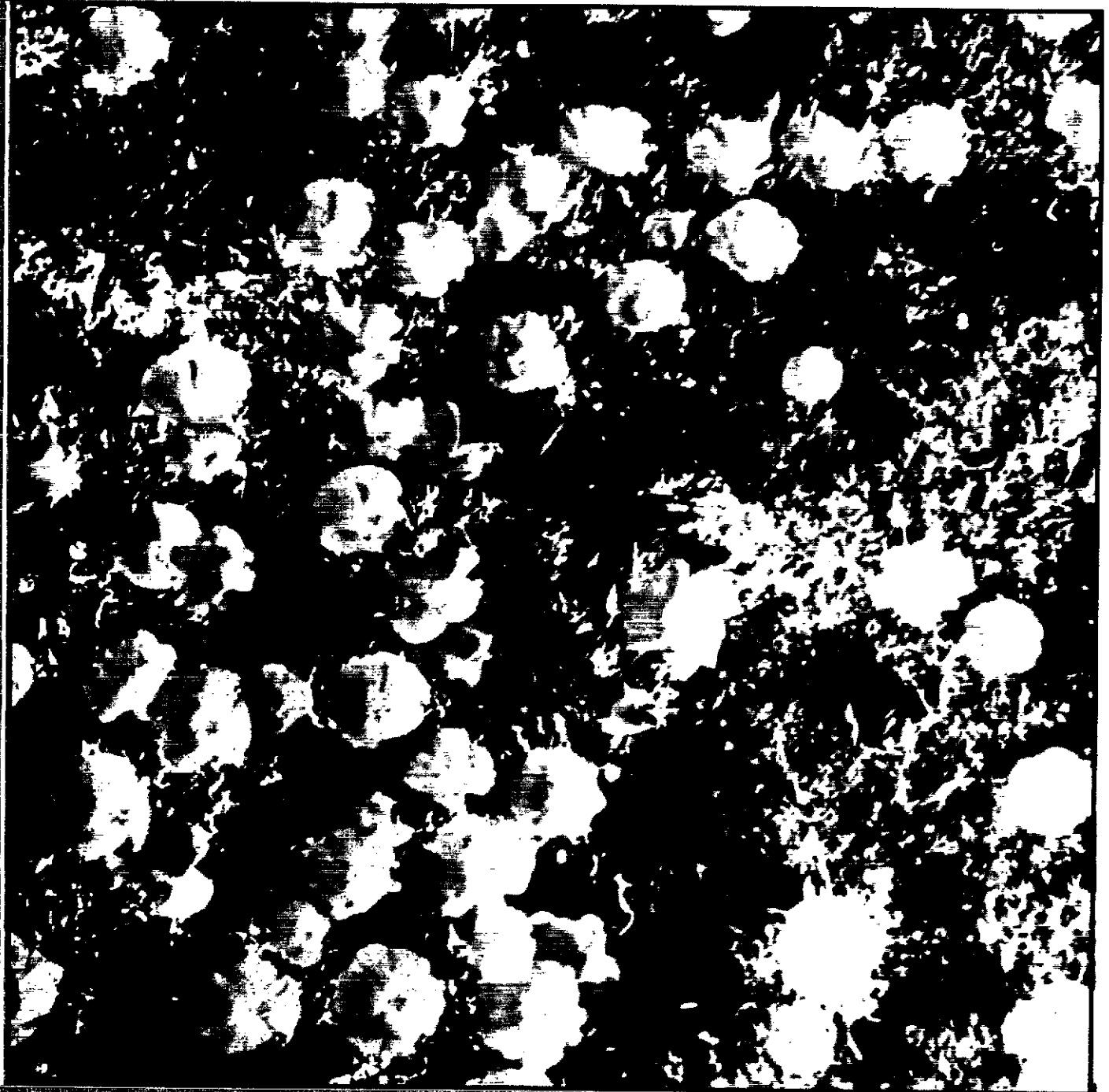
- Program Center
  - 75 - 100 people

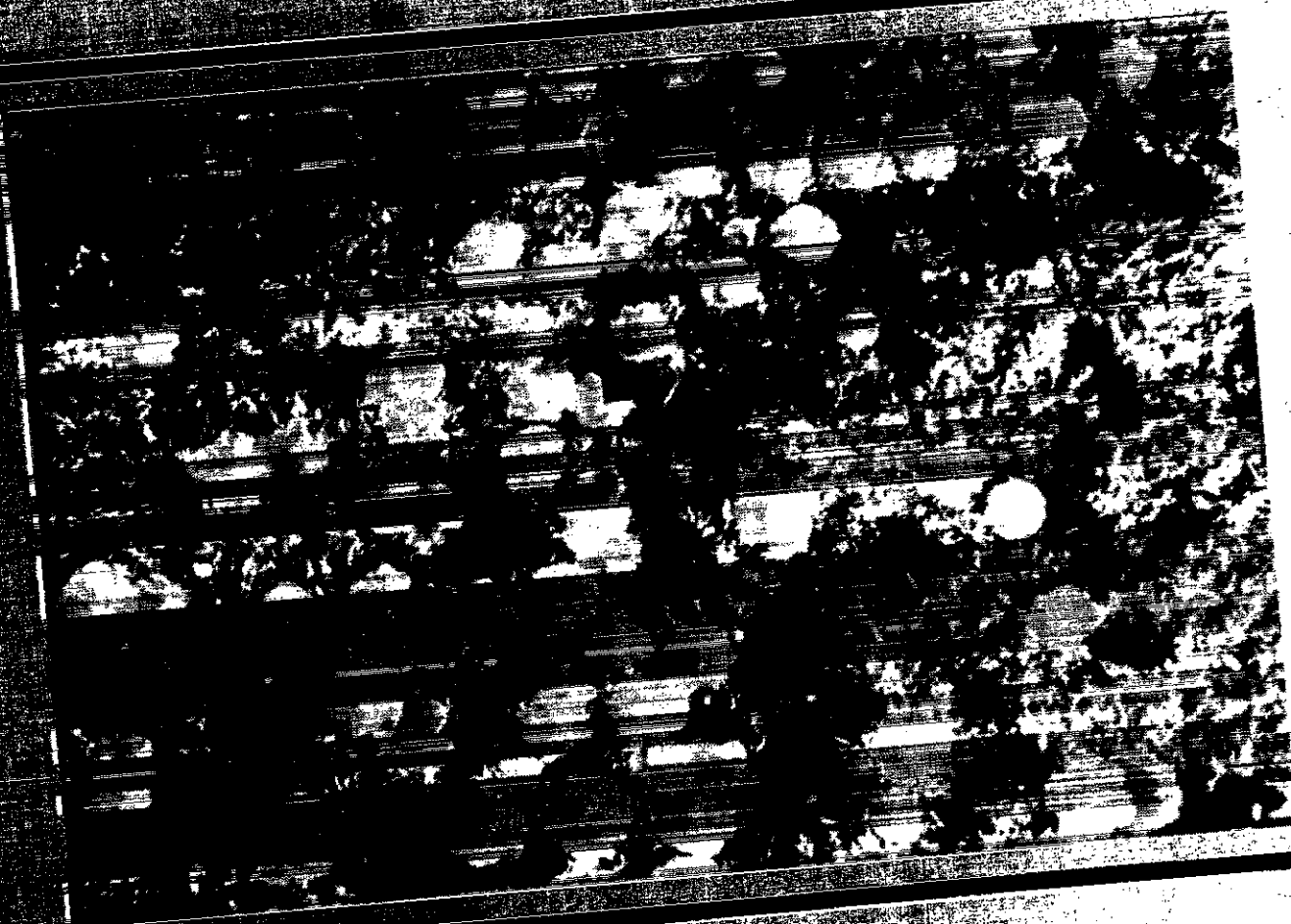
- Trail System
  - 5 miles of trails

- Administrative/Maintenance Facilities
  - Employee residence
  - Service yard

- Utilities
  - Water well and distribution system
  - Underground power
  - Underground telephone

# ENVIRONMENTAL IMPACT REPORT





ANTELOPE VALLEY CALIFORNIA POPPY RESERVE  
GENERAL DEVELOPMENT PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT

This Environmental Impact Report reflects the general nature of the project. The General Development Plan for the Antelope Valley California Poppy Reserve is broad in scope; therefore, the EIR is also a broad assessment of the potential impacts. Whenever a specific phase of the overall plan is budgeted and proposed for implementation, a specific environmental assessment will be prepared for the particular project, as part of the budget package.

Project Description - see page 3.

Description of Environmental Setting - see Resource Analysis, page 19.

Soil Resources

The primary soil types present on the site are in the Hanford-Romona-Greenfield Association consisting of well-drained, very deep, loamy sand to loam surfaces on alluvial sands and terraces. Various soils derived from these and other sources in the region are generally shallow, have low fertility and are subject to considerable erosion on the steeper slopes. Valley soils of alluvial origin are more productive, and their erosion hazard is lower.

Also see Geological Resources, page 20.

Biological Resources - see Vegetative Associations, page 20.

Animal Life - see Wildlife, page 21.

Paleontological Resources

The department is not aware of any fossil plants or animals within project boundaries.

Climate - see Resource Analysis, page 19.

Air Quality

Antelope Valley, including the Antelope Valley California Poppy Reserve, does have smoggy days. Oxidant levels, representing the photochemical pollution cloud, exceed state and federal air quality standards an average of 83 days a year (three-year average, 1971-1973). The number of days visibility was less than 10 miles (on days that would otherwise be clear) has reached 92 per year, in a 12-year average. Evidence indicates that this air pollution in the Southeast Desert Air Basin is primarily generated from the Los Angeles Metropolitan Area. Other pollutants monitored from 1970 to 1973 rarely exceeded the air quality standards.

Because air quality fundamentally affects the valuable resources of vistas from the tops of the buttes, it is a matter of deep concern.

## Cultural Resources

Archeological Resources - see page 21.

Historical Resources - see page 22.

### The Influence of Human Activity

Evidence has shown that humans have been in the area for a very long time, probably for more than 4,000 years. Over the years, many changes have taken place. However, the Antelope Valley California Poppy Reserve remains one of the most natural areas of its kind. There are a number of unimproved roads in the vicinity, as well as some dilapidated buildings and foundations, a powerline, a corral, two cement watering tanks, and a quarry, which is now often used as a shooting range. Off-highway vehicle use has been slight.

The Southern California Edison Company has submitted a Notice of Intention for a combined cycle generating station to the State Energy Commission. One of the four alternative sites described in this notice could require water supply lines and/or transmission lines to pass through or near the reserve.

The California Department of Water Resources has proposed a reservoir which would inundate parts of the project site along the northern boundary of the reserve. This proposal may be implemented in the late 1980s.

### Significant Environmental Effects of the Proposed Action

The greatest adverse environmental impacts of the proposed project would be caused by construction activities, physical alteration of the land, and the increased concentration of people and activities within certain areas of the project.

Short-term impacts are centered primarily on the concentration of facilities such as parking areas, roads, trails, sanitary facilities, and day-use areas. Impacts would be associated with increased dust, noise, and vehicular traffic related to construction.

After completion of the construction phase, long-term impacts caused by placement of structures may be expected. Long-term impacts could also result from the concentrations of people, vehicles, and activities.

Following is a summary of possible long-range impacts on the existing natural environment, private and public services, and community health and safety.

#### Effects on Geology and/or Soil

The cuts and fills likely to occur in grading the main parking area, access roads, picnic area, interpretive facilities, and trails, as well as visitor use of these facilities, could cause some soil erosion. Trails on the steeper slopes will have the most severe erosion potential. Because of the well-drained, deep, sandy loam soil conditions, these erosion problems are expected to be minimal.

The site could be affected by earthquakes on the nearby San Andreas Fault. The area is listed as having potential for strong ground shaking and small to moderate landslides.

#### Effects on Hydrology

The soil erosion mentioned above could lead to increased siltation and subsequent sedimentation into the local watershed. Flow patterns of other natural drainage channels could also be altered by grading or human-made drainage devices, such as ditches or culverts.

There will be a minimal reduction of the amount of water absorbed into the water table by the addition of impervious surfaces to the site, in the form of the Interpretive Center, roads, trails, etc. There could also be a minimal decrease in water quality due to the increase of automobiles on the site and associated petrochemicals, which might be assimilated into the hydrology system via runoff from parking areas and roadways.

#### Effects on Vegetation

Implementation of the proposed plan would lead to removal of some existing ground cover during construction. It would also result in soil compaction from concentrating visitors in specific areas, which could eventually affect the existing vegetation in these areas. No rare or endangered plant species have been identified in the reserve.

#### Effects on Wildlife

Development of reserve facilities such as parking areas, trails, roads, picnic areas, overlooks, the Interpretive Center, and sanitary facilities, may effect the established habitats of some animals. No rare or endangered animal species have been identified in the reserve.

#### Effects on Scenic or Visual Quality

The intrusion of park visitors into some previously undisturbed natural areas, the anticipated increase in visitation, the removal of vegetation, and the construction of facilities would have a negative impact on the visual quality of the reserve.

#### Effects on Neighboring Landowners

There is a considerable increase in vehicular traffic on Lancaster Road during the peak blooming season. The bike trails to the reserve will be linked with regional trail systems along the California Aqueduct, which could result in conflicts between bicycle and auto traffic along Lancaster Road.

#### Effects on Fire Fighting Services

Increased visitor use will heighten the possibility of fires, and will add to the responsibilities of the reserve staff and the Los Angeles County Fire Department. Local fire protection services of Los Angeles County have indicated that they do not anticipate a significant impact on their responsibilities associated with this project.



### Effects on Water and Sanitation

The development proposes adequate sanitary facilities. No significant impact on community health and safety is expected. Increased visitation at the site will increase the need for water, which will most likely be taken from an underground well, and stored in underground tanks near the Interpretive Center.

### Effects on Private and Public Service Demands

It is anticipated that several public and private service demands and benefits would result from the proposed development:

1. The development will require appropriate additional signing along Lancaster Road and Highway 138.
2. Increased fuel demands by visitors could decrease local supplies.
3. Additional personnel would require the full range of public and private services.
4. On-site construction could require local labor supplies, and could temporarily increase local employment.
5. Local labor might be used for maintenance of facilities.
6. Although many visitors bring most of their food supplies with them, the sale of incidentals and beverages at local grocery stores could increase. The economy in this area should benefit from this project.

### Effects on Existing Plans

The site is designated as public open space in the North Los Angeles County General Plan, and is compatible with this land use designation. It is possible the site will conflict with proposed development of a reservoir by the California Department of Water Resources near the northern boundary of this site. The Southern California Edison Company's combined cycle generating station alternative site, located near the reserve, would not be compatible with this General Development Plan.

The GDP is not consistent with the existing Los Angeles County Master Plan for Highways. The county plan proposes several new highways which would traverse the reserve; this plan is currently being revised.

It is hoped that these conflicts will be resolved with approval of the new Los Angeles County Master Plan for Highways. The department is opposed to additional road construction through the Antelope Valley California Poppy Reserve.

### Effects on Energy Consumption

The site will require increased energy consumption, both for transporting visitors to and from the reserve, and in operating and maintaining facilities.

### Mitigation Measures Proposed to Minimize the Significant Effects

1. Enforcement of reserve rules by a staff committed to the protection of natural and cultural resources will decrease the potential for misuse of these resources by park visitors.
2. Because only a small part of the natural area is being proposed for development, ample space will remain for wildlife to relocate naturally.
3. Adequate fencing, signing, and surveillance by reserve staff will discourage visitors from disturbing neighboring landowners.
4. Trails will be constructed to minimize the effects of increased park visitation, and to minimize potential erosion. These trails will be maintained by the operations staff.
5. No development will occur in the immediate vicinity of known archeological sites, and their locations will not be made available to the public. Interpretive facilities regarding cultural resources will be incorporated into the Interpretive Center displays.
6. An investigation of possible cultural sites will be conducted before any development in the areas of the sites. This investigation will determine what actions should be taken to preserve artifacts, and what interpretive facilities will be necessary.
7. Care will be taken in the design of all facilities, to limit them to those deemed essential for public enjoyment of the resources, with as little manipulation of the natural environment as possible.
8. Parking facilities and access roads will be constructed with a minimum of paving. A natural soil binder can be added to present surfaces to minimize erosion, while allowing for year-round access.
9. Care will be taken in constructing parking facilities and roads, to provide a visual buffer from Lancaster Road. This will involve a minimal amount of grading to avoid affecting the natural subsurface and surface drainage, thus minimizing deterioration of the primary resources.
10. The entrance to the unit from Lancaster Road will be designed for safety, and will be appropriately signed.
11. Effluent will be disposed according to public health standards. A determination of the disposal system's design will be made when the particular project is budgeted. Development of a septic tank and a leach field system is anticipated, and will be coordinated so as not to conflict with the prime resources.
12. Appropriate signing will be used along Lancaster Road, where necessary, to minimize conflicts between automobiles and bicycles.

13. Detailed energy conservation measures relating to building construction and design will be included, when a more specific environmental assessment is prepared for implementation of a particular budgeted phase of the overall plan. Tentative plans propose use of alternative energy sources such as solar and wind power, to reduce energy consumption and to increase visitors' knowledge of alternative energy techniques.
14. Provision of on-site parking will help to alleviate traffic circulation problems which may exist during the peak blooming season.

#### Significant Environmental Effects That Cannot Be Avoided If the Proposal Is Implemented

All the adverse impacts outlined in this report are considered to be environmental effects that cannot be avoided if the project is implemented as proposed. Most of these impacts should be reduced through mitigation measures which will ameliorate these effects to a level of insignificance. However, it is highly unlikely that any of the impacts will be totally eliminated.

Having inventoried and analyzed the existing resources and determined present and future recreational needs in the General Development Plan and Resource Management Plan, and having studied various alternatives, the department feels that the benefits to be gained from the proposed project outweigh the minor environmental impacts that would result from implementing the proposed development plan.

#### The Relationship Between Local Short-Term Uses and the Maintenance and Enhancement of Long-Term Productivity

The current short-term use of the reserve is for open space enjoyment and low-intensity recreational activity. There is limited interpretation of the natural and cultural resources located on the site. Additional short-term use, which could occur on the site if it were not a State Park System unit, might include intensive agricultural production or grazing, and subdivision for commercial, industrial, or residential use.

The current low-intensity use will be expanded by this General Development Plan. Short-term uses will include picnic areas, trails, interpretive displays, parking areas, an interpretive center, and sanitary facilities. This intensified use and development will not deteriorate the reserve's long-term productivity, because development is based on design criteria that enhance this productivity. The facilities will be developed to maximize user enjoyment, while minimizing deterioration of the resources.

The short-term use of the land as a state reserve will protect its natural characteristics and, therefore, its long-term productivity. Project implementation will eliminate all other unrelated uses on the site. The relationship between short-term use and long-term productivity at the Antelope Valley California Poppy Reserve is complementary; one in which the short-term use retains and expands the environment's long-term productivity.

## Alternatives to the Proposed Project

### No Development

This alternative would allow continuation of current use. It would mean continued and probably increased congestion along Lancaster Road during the wildflower blooming season. It could lead to degradation of the resources, by allowing uncontrolled access on the site without much-needed public facilities and interpretive displays.

### Increased or Decreased Development

The reserve classification regulates the intensity and diversity of development allowed in this State Park System unit. The General Development Plan recommends the degree of development deemed appropriate for public access and enjoyment of the site, while allowing protection of the resources. Actual development in the future will occur in phases that correspond to increases or decreases in public demand, and to the availability of development funds. Development less or greater than that recommended is contingent on removal or addition of limiting factors, such as acquisition of contiguous property. The General Development Plan is based on classification, resource management objectives, and public input.

### Location of Facilities

The arrangement of day-use facilities could vary from the proposed plan. All potential sites, however, have been considered for each proposed land use. Site selection was based on maximizing benefits for reserve visitors, and minimizing the impact or effect on the environment. For example, the General Development Plan locates the Interpretive Center close to an area known for its excellent poppy displays, while placing it in a position where it is least likely to conflict with the overall view of the buttes and their brilliant wildflower displays.

## Irreversible Changes and Irretrievable Commitments of Resources Which Would Be Involved Should The Project Be Implemented

If future demands or environmental priorities change, and this site is deemed more suitable for some other use, the area will not have been altered enough by project implementation to preclude changes in its use. The proposed development will certainly lead to the conversion of some undeveloped land into land sustaining minimal resource-oriented recreation facilities. It is probable that some wildlife and vegetation resources will be lost or displaced due to development and increased public visitation of the site. Some nonrenewable resources will be lost, in the form of oil, gasoline, and other products required for the production of energy necessary to complete the proposed developments, and in the form of materials for proposed construction.

### Growth-Inducing Impacts

There will be some indirect growth-inducing impacts associated with the development of the Antelope Valley California Poppy Reserve. It is possible that the local economy in the vicinity of the reserve might be stimulated by the influx of visitors and by initial construction activities involved in development of the unit. It is anticipated that these impacts will be minimal, due to the seasonal nature of the reserve and the limited development planned for the site.

## ORGANIZATIONS AND REFERENCES CONSULTED IN PREPARING THIS REPORT

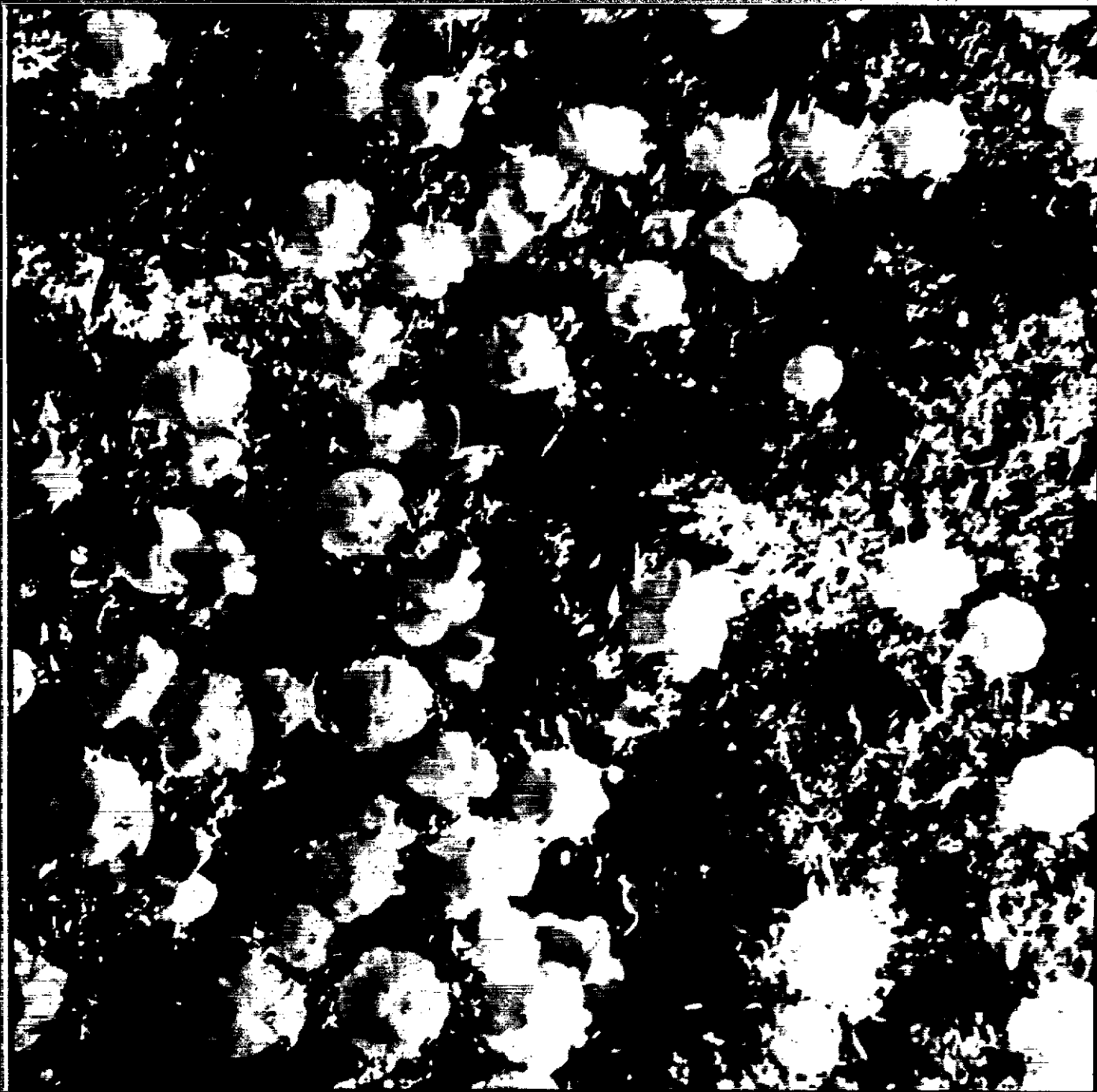
### ORGANIZATIONS

California Department of Parks and Recreation  
Resource Preservation and Interpretation Division  
Natural Heritage Section  
Cultural Heritage Section  
Interpretive Planning Unit  
Development Division  
California Department of Water Resources  
Los Angeles County Planning Department  
Los Angeles County Fire Department  
Los Angeles County Road Department

### REFERENCES

- "Inventory of Features, Antelope Valley California Poppy Reserve." Prepared by Frederick A. Meyer; May 1976. Manuscript on file at California Department of Parks and Recreation.
- Rowell, Robert E. "The Poppy Park - An Environmental Survey of the Wildflower Reserve in Antelope Valley," July 1976. Independent study; copy on file at California Department of Parks and Recreation.
- "North Los Angeles County General Plan; Antelope Valley Area General Plan." Los Angeles County Department of Regional Planning; November 1975.
- "Santa Monica Mountains State Parks Preliminary Resource Management Plans, General Development Plans and Environmental Impact Reports." California Department of Parks and Recreation; November 1976.
- "Notice of Intention: Combined Cycle Generating Station." Southern California Edison Company; August 1977.
- "Draft Antelope Valley California Poppy Reserve - Resource Management Plan," December 1977. Manuscript on file at California Department of Parks and Recreation.
- "Preliminary General Development Plan for the Antelope Valley California Poppy Reserve," April 1978. California Department of Parks and Recreation.

# Appendixes



## Appendix A

### North Los Angeles County General Plan

The information in this report was obtained from the Citizen Review Draft Summary of the North Los Angeles County Areawide General Plan (1975). The document summarizes each of the fourteen elements which constitute the Areawide General Plan for the 2,500 square miles of North Los Angeles County. The plan is directed at guiding growth in the area to 1995. Elements that were of particular interest to the planning staff were land use, circulation, and environmental resources management.



## Appendix B

### Maps

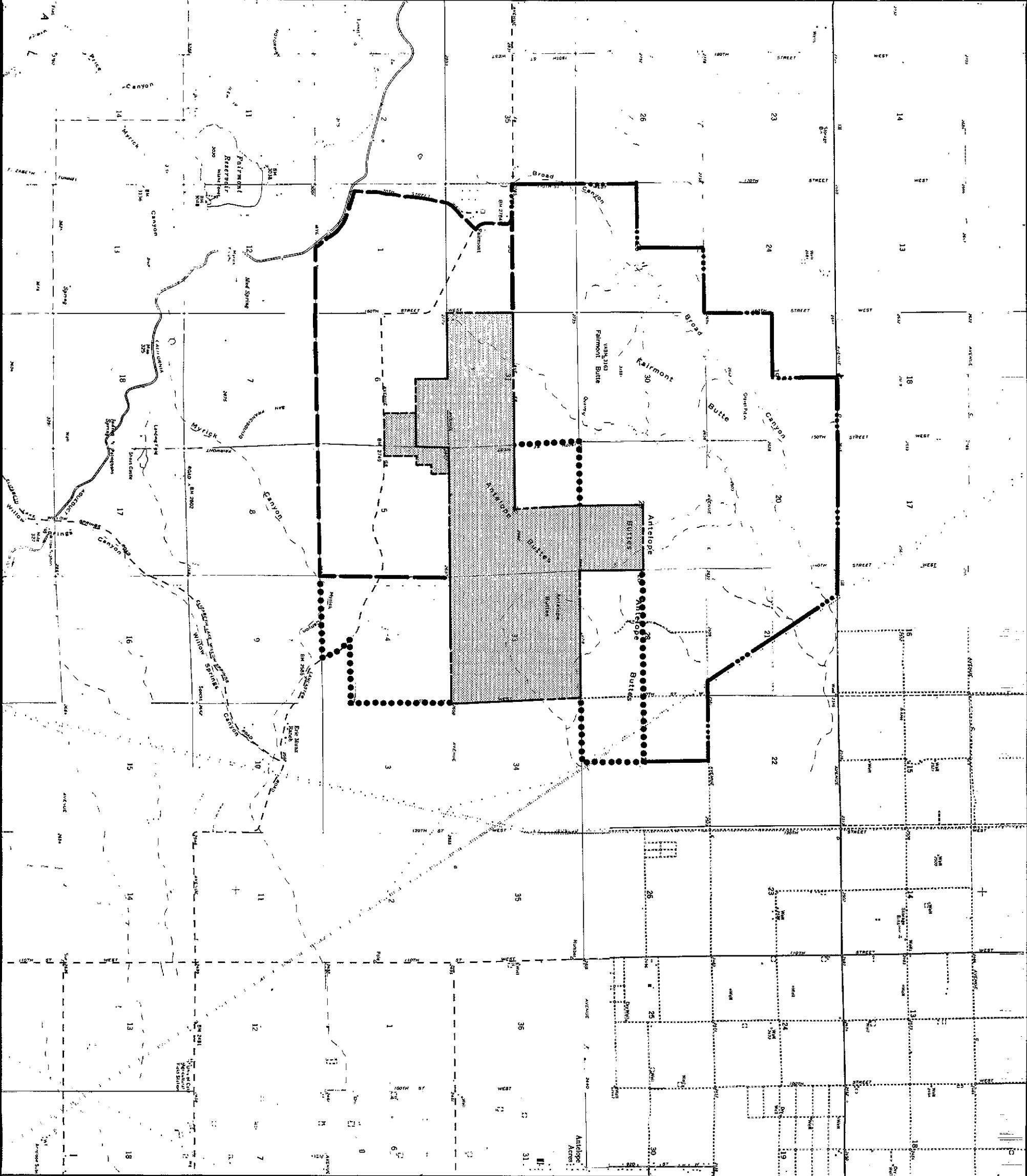

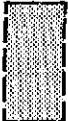






FIGURE 3  
**STUDY AREA**  
**LEGEND**

-  EXISTING STATE RESERVE LANDS
-  CURRENT FUNDED ACQUISITION
-  AREAS OF MANAGEMENT CONCERN
-  FIRST PRIORITY
-  SECOND PRIORITY
-  STUDY AREA



0' 2000' 4000'

80  
ACRES



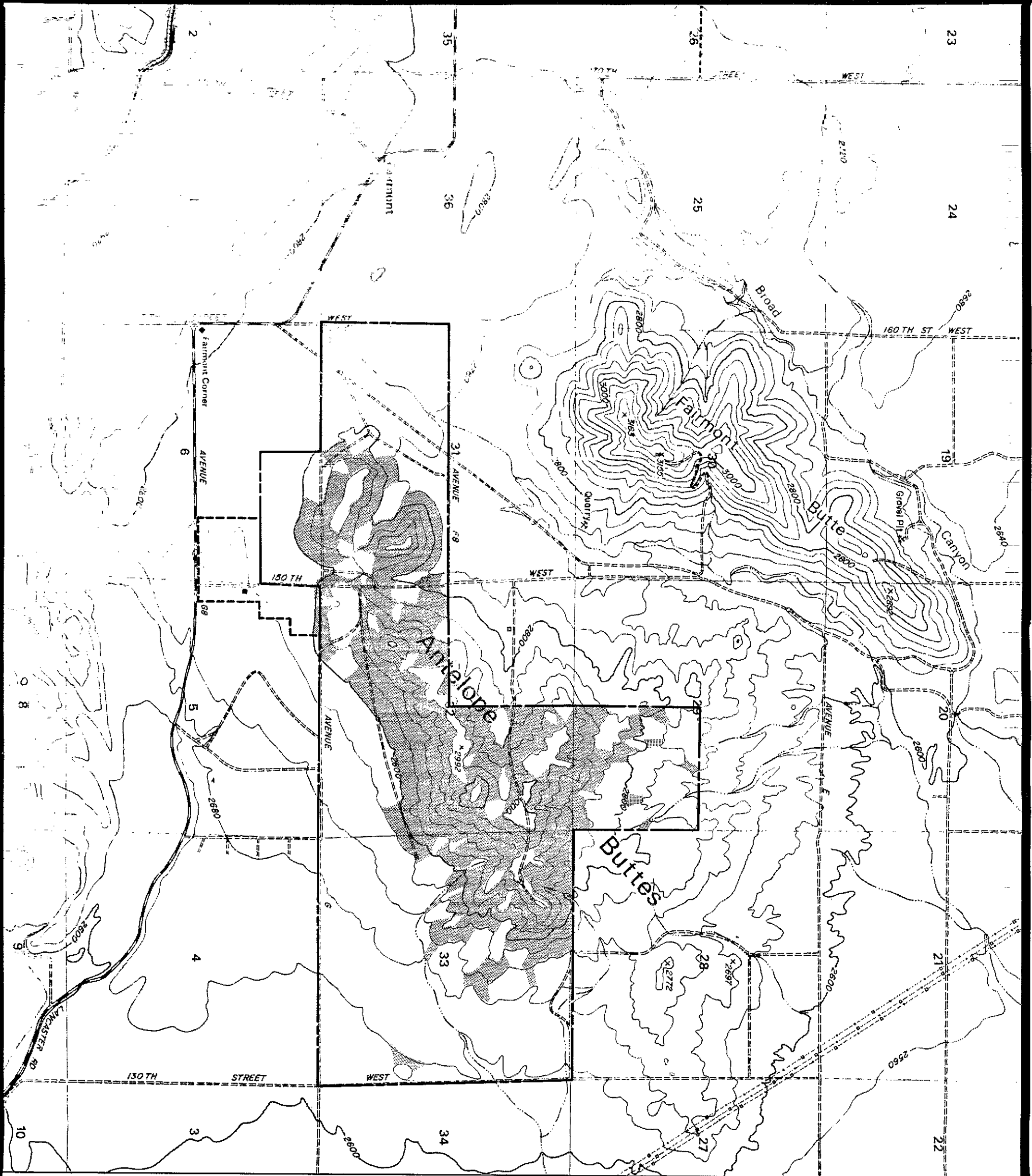


FIGURE 5  
**SLOPE  
EVALUATION  
LEGEND**

- 0-10%, GENTLE SLOPE
- 10% +, STEEP SLOPE



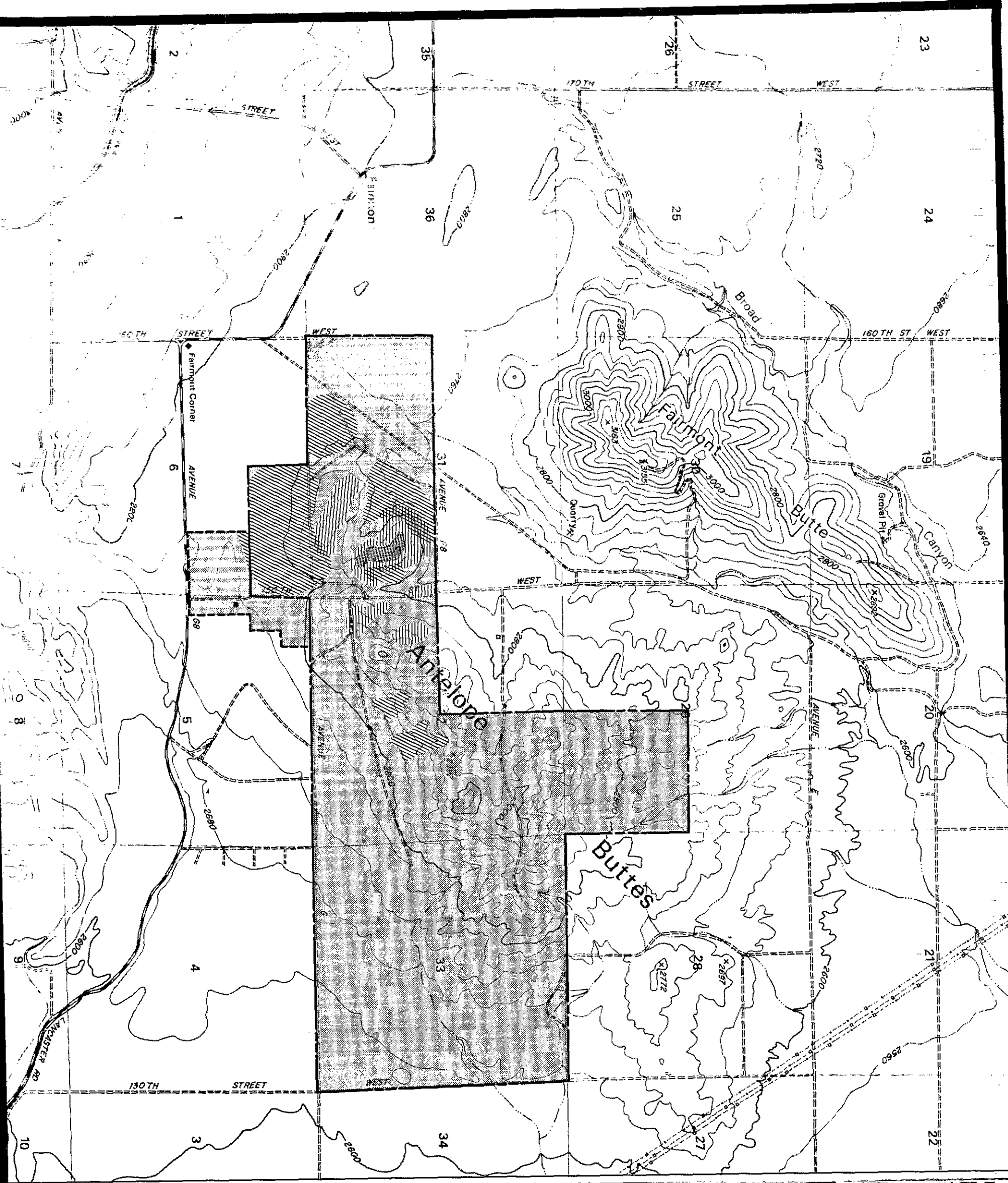
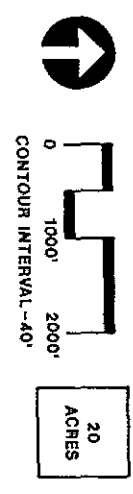


FIGURE 6  
**UNIQUE  
VEGETATION  
EVALUATION  
LEGEND**

- IDENTIFIED POPPY DISPLAY AREAS IN 1977
- POTENTIAL POPPY & WILDFLOWER DISPLAY AREAS
- SIGNIFICANT NATIVE BUNCH GRASS STANDS
- SIGNIFICANT BEAVER TAIL CACTUS CONCENTRATIONS



DRAWING NO. SHEET NO.	ANTELOPE VALLEY CALIFORNIA POPPY RESERVE <b>UNIQUE VEGETATION EVALUATION</b>		RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		DESIGNED
	APPROVED _____ DATE _____		REVISIONS		DRAWN
					CHECKED



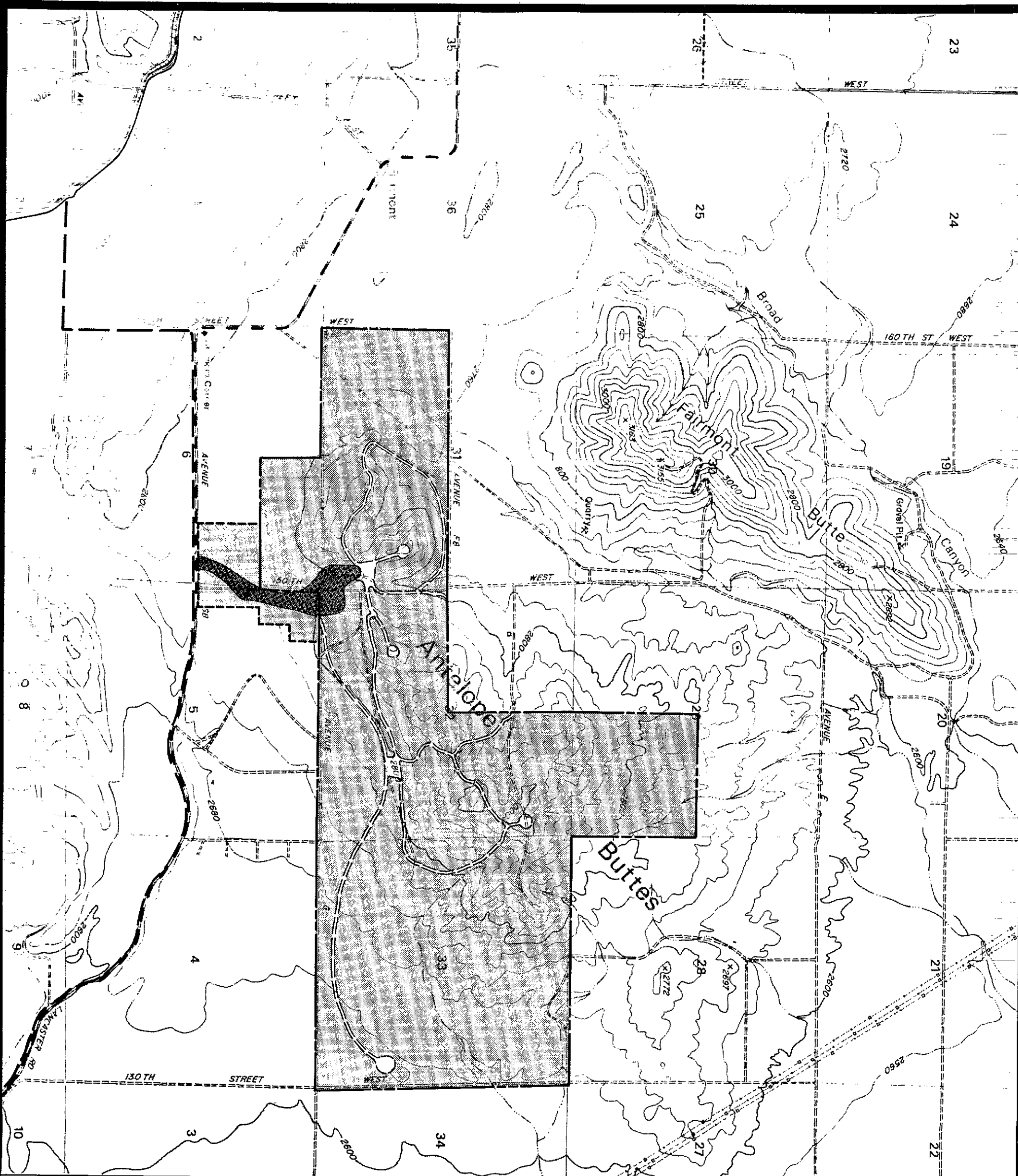



FIGURE 7  
**PROPOSED  
LAND USE  
LEGEND**

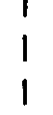
**LAND USE**

 NATURAL PRESERVATION:  
NO DEVELOPMENT


 PASSIVE INTERPRETATION:  
TRAILS, OBSERVATION  
POINTS AND SEASONAL  
ROADS

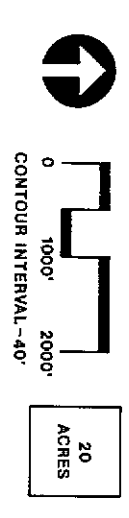
 ACTIVE INTERPRETATION  
INTERPRETIVE CENTER,  
NATURE STUDY AREA,  
PROGRAM CENTER, PICNIC  
AREA, RESIDENCE,  
SERVICE YARD, BIKE  
TRAIL, PERMANENT ROADS  
AND PARKING LOTS

**CIRCULATION**

 EXISTING PAVED COUNTY  
ROAD

 EXISTING CALIFORNIA  
AQUEDUCT BIKEWAY

 PROPOSED BIKE TRAIL  
LOOP (see study area map  
figure 2-for entire length)



SHEET NO. OF	DRAWING NO.	ANTELOPE VALLEY CALIFORNIA POPPY RESERVE <b>PROPOSED LAND USE</b>	RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF PARKS AND RECREATION		DESIGNED
			APPROVED _____	DATE _____	DRAWN
					CHECKED

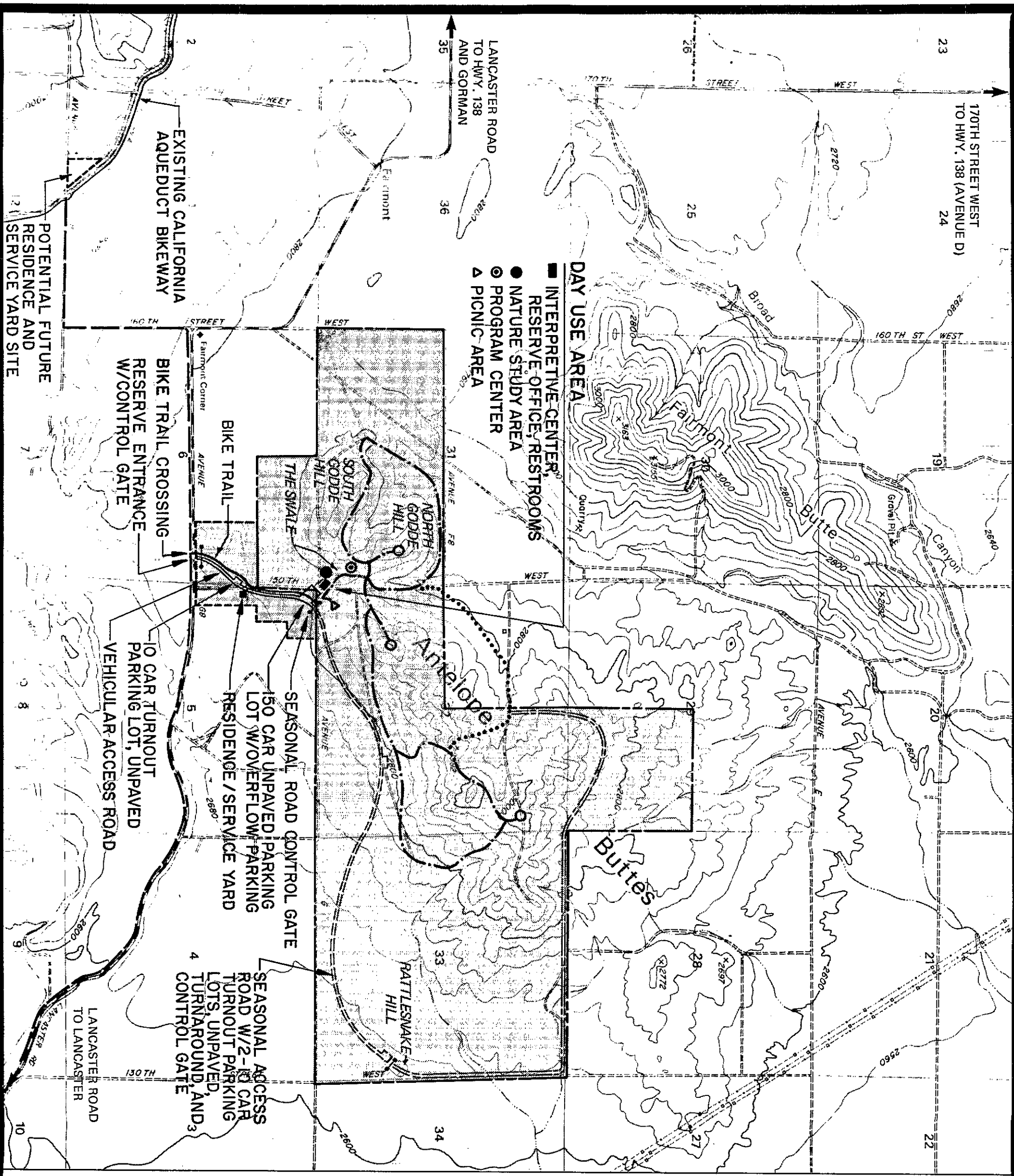


FIGURE 8  
**GENERAL DEVELOPMENT PLAN**  
**LEGEND**

- EXISTING STATE RESERVE LANDS
- CURRENT FUNDED ACQUISITION
- YEAR-ROUND VEHICULAR ACCESS ROAD
- SEASONAL VEHICULAR ACCESS ROAD
- SERVICE ROAD
- BIKE TRAIL
- POTENTIAL BIKE TRAIL LOOP
- HIKING TRAILS
- POTENTIAL HIKING TRAILS
- OBSERVATION POINTS
- CONTROL GATES

